

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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Claims 1-22 (canceled)

Claims 23-32 (withdrawn)

33. (previously amended) A method of inducing regeneration and repair of nerve axon myelin coatings in a mammal with demyelination comprising:

systemically administering sufficient quantities of thrombopoietin to the mammal to induce endogenous production of platelet-derived growth factor in the mammal; and

systemically administering sufficient quantities of a thyroid regulatory agent to regulate cell division and oligodendroglia production,

whereby regeneration and repair of nerve axon myelin coatings in a mammal with demyelination is induced.

34. (previously added) The method of claim 33 wherein the step of systemically administering the thrombopoietin comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

35. (currently amended) The method of claim 33 wherein the thyroid regulatory agent ~~comprises~~ is a thyroid hormone.

36. The method of claim 35 wherein the step of administering the thyroid hormone comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

37. (currently amended) The method of claim 35 wherein the thyroid hormone ~~comprises~~ is a thyroid hormone extract.

38. (currently amended) The method of claim 35 wherein the thyroid hormone ~~comprises~~ is a synthetic thyroid hormone.

39. (currently amended) The method of claim 33 wherein the thyroid regulatory agent ~~comprises~~ is thyrotropin.

40. (previously added) The method of claim 39 wherein the step of administering the thyrotropin comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

41. (previously added) The method of claim 33 wherein the thrombopoietin is selected from the group consisting of a thrombopoietin isolated from a mammal, a thrombopoietin made by recombinant means, and a thrombopoietin made by synthetic means.

42. (previously added) The method of claim 33 wherein the quantity of thrombopoietin administered is from 1.0 to 100  $\mu\text{g/kg}$  body weight per day.

43. (previously added) The method of claim 33 wherein the thyroid regulatory agent is co-administered to the mammal with the thrombopoietin.

44. (previously added) The method of claim 33 wherein the thyroid regulatory agent is initially administered to the mammal at least ten days subsequent to initial administration of the thrombopoietin.

45. (previously added) A method of inducing increased platelet production with secondary increased endogenous production of platelet-derived growth factor in a mammal, the platelet-derived growth factor serving as a therapeutic agent to stimulate regeneration or repair of nerve axon myelin coatings in a mammal with damaged neurons, the method comprising:

systemically administering sufficient quantities of thrombopoietin to the mammal to increase platelet production; and

systemically administering sufficient quantities of a thyroid regulatory agent to regulate cell division.

46. (previously added) The method of claim 45 wherein the step of systemically administering the thrombopoietin comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

47. (currently amended) The method of claim 45 wherein the thyroid regulatory agent ~~comprises~~ is thyroid hormone.

48. (previously added) The method of claim 47 wherein the step of administering the thyroid hormone comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

49. (currently amended) The method of claim 47 wherein the thyroid hormone ~~comprises~~ is a thyroid hormone extract.

50. (currently amended) The method of claim 47 wherein the thyroid hormone ~~comprises~~ is a synthetic thyroid hormone.

51. (currently amended) The method of claim 45 wherein the thyroid regulatory agent ~~comprises~~ is thyrotropin.

52. (previously added) The method of claim 51 wherein the step of administering the thyrotropin comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

53. (previously added) The method of claim 45 wherein the thrombopoietin is selected from the group consisting of a thrombopoietin isolated from a mammal, a thrombopoietin made by recombinant means, and a thrombopoietin made by synthetic means.

54. (previously added) The method of claim 45 wherein the quantity of thrombopoietin administered is from 1.0 to 100  $\mu\text{g/kg}$  body weight per day.

55. (previously added) The method of claim 45 wherein the thyroid regulatory agent is co-administered to the mammal with the thrombopoietin.

56. (previously added) The method of claim 45 wherein the thyroid regulatory agent is initially administered to the mammal at least ten days subsequent to initial administration of the thrombopoietin.

57. (previously added) A method of inducing increased platelet production with secondary increased endogenous production of platelet-derived growth factor in a mammal, the platelet-derived growth factor serving as a therapeutic agent to stimulate regeneration or repair of nerve axon myelin coatings in a mammal with damaged neurons, the method comprising systemically administering sufficient quantities of thrombopoietin to the mammal to increase platelet production, whereby endogenous production of platelet-derived growth factor is increased, thereby causing regeneration or repair of nerve axon myelin coatings.

58. (previously added) The method of claim 57 wherein the step of systemically administering the thrombopoietin comprises a method selected from the group consisting of oral administration, intravenous injection, intramuscular injection and intrathecal injection.

59. (previously added) The method of claim 57 wherein the thrombopoietin is selected from the group consisting of a thrombopoietin isolated from a mammal, a thrombopoietin made by recombinant means, and a thromopoieting made by synthetic means.

60. (previously amended) A method of inducing increased platelet production with secondary increased endogenous production of platelet-derived growth factor in a mammal, the platelet-derived growth factor serving as a therapeutic agent to stimulate regeneration or repair of nerve axon myelin coatings in a mammal with damaged neurons, the method comprising systemically administering from 1.0 to 100  $\mu\text{g/kg}$  body weight per day of thrombopoietin to the mammal to increase platelet production, whereby endogenous production of platelet-derived growth factor is increased, thereby causing regeneration or repair of nerve axon myelin coatings.

61. (previously added) A method of inducing increased platelet production with secondary increased endogenous production of platelet-derived growth factor in a mammal, the platelet-derived growth factor serving as a therapeutic agent to stimulate regeneration or repair of nerve axon myelin coatings in a mammal with damaged neurons, comprising:

systemically administering from 1.0 to 100  $\mu\text{g/kg}$  body weight per day of thrombopoietin to the mammal to induce endogenous production of platelet-derived growth factor in the mammal; and

systemically administering a thyroid regulatory agent to regulate cell division and oligodendroglia production, the thyroid regulatory agent selected from the group consisting of from about 0.10 to 0.125 mg per day of oral levothyroxine, from about 25 to 50  $\mu\text{g}$  per day of oral liothyronine sodium, from about 32 to 160  $\mu\text{g}$  per day of oral thyroglobulin, from about 15 to 120 mg per day of oral dessicated thyroid, and from about 50 to 200  $\mu\text{g}$  per day of injected levothyroxine.